APPENDIX A

XML
	≡ version	1.0	
	≡ encoding	UTF-8	

Comment: edited with XML Spy v3.5 NT (http://www.xmlspy.com) by Cassio Goldschmidt (Cisco Systems)

PopupMenuItems *1 or more sequence of*
	PopupMenuItem	1 or more

PopupMenuItem *1 or more sequence of*
	ClickAction	1 or more

ClickAction *EMPTY*

ClickAction *attribute list*

	Name	Type	Values		Presence	Default
1	command	CDATA			#REQUIRED	
2	type	Choice	Values		#REQUIRED	

		Text
	1	HTML
	2	XML
	3	TOPO

DoubleClickActi... *EMPTY*

DoubleClickAction *attribute list*

	Name	Type	Values		Presence	Default
1	command	CDATA			#REQUIRED	
2	type	Choice	Values		#REQUIRED	

		Text
	1	HTML
	2	XML
	3	TOPO

Comment: useGrid: deault is false

useGrid *EMPTY*

Comment: fitInWindow (default is true)

fitInWindow *EMPTY*

Comment: background: default is white without pictures

background *EMPTY*

Comment:

Comment: This is the main element - the root of everythign else

graph *0 or more choice of*
	useGrid	0 or 1
	fitInWindow	0 or 1
	centerOn	0 or 1
	background	0 or 1
	buttons	0 or 1
	layoutType	0 or 1
	PopupMenuIte...	0 or 1
	nodes	0 or 1
	edges	0 or 1

useGrid *attribute list*

	Name	Type	Values		Presence	Default
1	set	Choice	Values		#REQUIRED	

		Text
	1	true
	2	false

Comment: fitInWindow, by definition, also means center graph

fitInWindow *attribute list*

	Name	Type	Values		Presence	Default
1	set	Choice	Values		#REQUIRED	

		Text
	1	true
	2	false

Comment: CenterOn Values: graph, node, none if node is choosen, fitInWindow must be false (default is none)

centerOn *#PCDATA*

Comment: Img ="null" means clean-up current img, otherwise use img= a URL. color is a color entry in Hexadecimal (e.g. FFFFFF for white, FF0000 for red) center is a comma separated x,y coordinate.

background *attribute list*

	Name	Type	Values	Presence	Default
1	img	CDATA		#REQUIRED	
2	color	CDATA		#IMPLIED	
3	center	CDATA		#IMPLIED	

Comment: layoutType can be Circular, Hierachical, Orthogonal and ... (default is none)

layoutType *#PCDATA*

Comment:

Comment: Definition of node and nodes

nodes *1 or more sequence of*
	node

node *0 or more choice of*
	tooltip	0 or 1
	location	0 or 1
	DoubleClickActi...	0 or 1
	PopupMenuIte...	0 or 1

node *attribute list*

	Name	Type	Values	Presence	Default
1	label	CDATA		#REQUIRED	
2	img	CDATA		#REQUIRED	

Comment:

Comment: Definition of toolbar buttons

buttons *1 or more sequence of*
	button

button *1 or more sequence of*
	tooltip	0 or 1
	ClickAction	1 or more

tooltip	0 or 1				

button *attribute list*

	Name	Type	Values	Presence	Default
1	label	CDATA		#REQUIRED	

Comment	A tooltip for the node/button
tooltip	#PCDATA
Comment	The x,y location for a node
location	#PCDATA
Comment	
Comment	Definition of edges and edge

edges *1 or more sequence of*

edge	1 or more	

edge *0 or more choice of*

label	0 or 1	
color	0 or 1	
type	0 or 1	
PopupMenuIte...	0 or 1	

edge *attribute list*

	Name	Type	Values	Presence	Default
1	source	CDATA		#REQUIRED	
2	target	CDATA		#REQUIRED	

Comment	Edge's label, default is none
label	#PCDATA
Comment	Edge's color in Hexadecimal (e g 000000 is black, 00FF00 is green), default is black
color	#PCDATA
Comment	Type: A number that represents the edge to be used 1=One way arrowed edge, 2=One way reversed arrowed edge, 3=double arrow edge (both directions), 4=no arrows (default)
type	#PCDATA

```xml
<?xml version='1.0'?>
<graph>
      <!-- fitInWindow, by definition, also means center graph -->
      <fitInWindow set="false"/>
      <!-- CenterOn Values: graph, node, none
      if node is choosen, fitInWindow must be false -->
      <centerOn>node</centerOn>
      <Nodes>
            <node label="ATHENS" img="http://eman-
            dev/AppletTest/Images/32x32-end_station_blue.gif">
                  <tooltip>ATHENS</tooltip>
                  <DoubleClickAction command="http://eman-
                  dev/ADTopo/ADTopo.cgi?SiteCode=ATHENS&amp;Hops=1&amp;Data
                  Type=1" type="XML"/>
                  <PopupMenuItems>
                        <PopupMenuItem label="Site links...">
                              <ClickAction command="http://eman-
                              dev/ADTopo/ADTopo.cgi?SiteCode=ATHENS&amp;Hop
                              s=1&amp;DataType=3" type="HTML"/>
                        </PopupMenuItem>
                        <PopupMenuItem label="Routers...">
                              <ClickAction command="http://eman-
                              dev/ADTopo/ADTopo.cgi?SiteCode=ATHENS&amp;Hop
                              s=1&amp;DataType=2" type="HTML"/>
                        </PopupMenuItem>
                        <PopupMenuItem label="Subnets...">
                              <ClickAction command="http://eman-
                              dev/ADTopo/ADTopo.cgi?SiteCode=ATHENS&amp;Hop
                              s=1&amp;DataType=4" type="HTML"/>
                        </PopupMenuItem>
                  </PopupMenuItems>
            </node>
            <node label="BIRMINGHAM" img="http://eman-
            dev/AppletTest/Images/32x32-end_station_blue.gif">
                  <tooltip>BIRMINGHAM</tooltip>
                  <DoubleClickAction command="http://eman-
                  dev/ADTopo/ADTopo.cgi?SiteCode=BIRMINGHAM&amp;Hops=1&amp;
                  DataType=1" type="XML"/>
                  <PopupMenuItems>
                        <PopupMenuItem label="Site links...">
                              <ClickAction command="http://eman-
                              dev/ADTopo/ADTopo.cgi?SiteCode=BIRMINGHAM&amp
                              ;Hops=1&amp;DataType=3" type="HTML"/>
                        </PopupMenuItem>
                        <PopupMenuItem label="Routers...">
                              <ClickAction command="http://eman-
                              dev/ADTopo/ADTopo.cgi?SiteCode=BIRMINGHAM&amp
                              ;Hops=1&amp;DataType=2" type="HTML"/>
                        </PopupMenuItem>
                        <PopupMenuItem label="Subnets...">
```

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                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=BIRMINGHAM&amp
                        ;Hops=1&amp;DataType=4" type="HTML"/>
                </PopupMenuItem>
        </PopupMenuItems>
</node>
<node label="BRENTWOOD" img="http://eman-
dev/AppletTest/Images/32x32-end_station_blue.gif">
        <tooltip>BRENTWOOD</tooltip>
        <DoubleClickAction command="http://eman-
        dev/ADTopo/ADTopo.cgi?SiteCode=BRENTWOOD&amp;Hops=1&amp;D
        ataType=1" type="XML"/>
        <PopupMenuItems>
                <PopupMenuItem label="Site links...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=BRENTWOOD&amp;
                        Hops=1&amp;DataType=3" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Routers...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=BRENTWOOD&amp;
                        Hops=1&amp;DataType=2" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Subnets...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=BRENTWOOD&amp;
                        Hops=1&amp;DataType=4" type="HTML"/>
                </PopupMenuItem>
        </PopupMenuItems>
</node>
<node label="MPH-CS1" img="http://eman-
dev/AppletTest/Images/32x32-end_station_blue.gif">
        <tooltip>MPH-CS1</tooltip>
        <DoubleClickAction command="http://eman-
        dev/ADTopo/ADTopo.cgi?SiteCode=MPH-
        CS1&amp;Hops=1&amp;DataType=1" type="XML"/>
        <PopupMenuItems>
                <PopupMenuItem label="Site links...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=MPH-
                        CS1&amp;Hops=1&amp;DataType=3" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Routers...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=MPH-
                        CS1&amp;Hops=1&amp;DataType=2" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Subnets...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=MPH-
                        CS1&amp;Hops=1&amp;DataType=4" type="HTML"/>
                </PopupMenuItem>
        </PopupMenuItems>
</node>
```

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```xml
<node label="RTP" img="http://eman-dev/AppletTest/Images/32x32-
end_station_blue.gif">
        <tooltip>RTP</tooltip>
        <DoubleClickAction command="http://eman-
        dev/ADTopo/ADTopo.cgi?SiteCode=RTP&amp;Hops=1&amp;DataTyp
        e=1" type="XML"/>
        <PopupMenuItems>
                <PopupMenuItem label="Site links...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=RTP&amp;Hops=1
                        &amp;DataType=3" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Routers...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=RTP&amp;Hops=1
                        &amp;DataType=2" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Subnets...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=RTP&amp;Hops=1
                        &amp;DataType=4" type="HTML"/>
                </PopupMenuItem>
        </PopupMenuItems>
</node>
<node label="ATLANTA" img="http://eman-
dev/AppletTest/Images/32x32-end_station_blue.gif">
        <tooltip>ATLANTA</tooltip>
        <DoubleClickAction command="http://eman-
        dev/ADTopo/ADTopo.cgi?SiteCode=ATLANTA&amp;Hops=1&amp;Dat
        aType=1" type="XML"/>
        <PopupMenuItems>
                <PopupMenuItem label="Site links...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=ATLANTA&amp;Ho
                        ps=1&amp;DataType=3" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Routers...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=ATLANTA&amp;Ho
                        ps=1&amp;DataType=2" type="HTML"/>
                </PopupMenuItem>
                <PopupMenuItem label="Subnets...">
                        <ClickAction command="http://eman-
                        dev/ADTopo/ADTopo.cgi?SiteCode=ATLANTA&amp;Ho
                        ps=1&amp;DataType=4" type="HTML"/>
                </PopupMenuItem>
        </PopupMenuItems>
</node>

</Nodes>
<Edges>
        <edge source="ATLANTA" target="ATHENS">
                <label>2717</label>
        </edge>
        <edge source="ATLANTA" target="BIRMINGHAM">
```

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```xml
            <label>32767</label>
        </edge>
        <edge source="ATLANTA" target="BRENTWOOD">
            <label>10922</label>
        </edge>
        <edge source="ATLANTA" target="MPH-CS1">
            <label>10922</label>
        </edge>
        <edge source="ATLANTA" target="RTP">
            <label>2716</label>
        </edge>

    </Edges>
</graph>
```

```xml
<?xml version='1.0'?>
<graph>
    <useGrid set="false"/>
    <!-- fitInWindow, by definition, also means center graph -->
    <fitInWindow set="true"/>
    <!-- CenterOn Values: graph, node, none
         if node is choosen, fitInWindow must be false -->
    <centerOn>graph</centerOn>
    <!-- Img ="null" means clean-up current img -->
    <!-- <background color="FFFFFF" img="http://cassio-
      7020/AppletTest/Images/32x32-end_station_yellow.gif"
      style="IMAGE_TILE"/> -->
    <!-- <background color="00F000" img="null"/> -->
    <background img="http://cassio-7020/AppletTest/Images/32x32-
    end_station_yellow.gif" center="10,10"/>
    <!-- <layoutType>Hierarchical</layoutType> -->
    <layoutType>Hierarchical</layoutType>
      <nodes>
            <node label="Node on the Fly" img="http://cassio-
            7020/AppletTest/Images/32x32-end_station_red.gif">
            <tooltip>Behold!!!!</tooltip>
            <location>50,100</location>
            </node>
            <node label="More Node on the Fly" img="http://cassio-
            7020/AppletTest/Images/32x32-end_station_yellow.gif">
                  <!-- No tooltip -->
            <select/>
            </node>
            <node label="Unknown node" img="http://cassio-
            7020/AppletTest/Images/32x32-end_station_blue.gif">
                  <!-- I just changed the icon of an existing node -->
            </node>
      </nodes>
      <edges>
        <!-- Edge types:
            1: one way arrow
            2: reverse arrow
            3: two arrows
            4: no arrows -->
            <edge source="Node on the Fly" target="Unknown node">
                  <label>A new Label...</label>
                  <color>0000FF</color>
                  <!-- No edge type -->
            </edge>
            <edge source="Node on the Fly" target="More Node on the Fly">
                  <!-- No label -->
                  <color>00FF00</color>
                  <type>3</type>
            </edge>
      </edges>
</graph>
```